

Mafia Island Marine Park, Tanzania: Implications of Applying a Marine Park Paradigm in a Developing Country

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Introduction

The group of islands incorporating Mafia Island lie off the east coast of Africa and are a part of mainland Tanzania (Figure 1). The islands are within 20 km of the mainland coast and under the influence of Tanzania's largest river, the Rufiji. Mafia Island Marine Park (MIMP) was gazetted in April 1995, and its boundary incorporates varied coral reef, mangrove, seagrass and soft bottom habitats, islands of raised Pleistocene reef, cays, and coastal forest with a total area of 821 km² (Fig. 2).

This paper critiques the process and motives for the establishment of the MIMP. The paper explores conservation advantages and disadvantages of the establishment of the Park and the use of the World Conservation Union/Great Barrier Reef Marine Park (IUCN/GBRMP) paradigm for its management. The premise that the project was a model of community participation and represents a new approach is challenged. The management of two key environmental threats (dynamite fishing and coral mining) are used to illustrate the advantages and disadvantages of transposing conservation and management paradigms from developed countries to developing countries.

Historical Background

Discussions on marine parks in Tanzania, particularly in the Mafia region, have been undertaken since 1968 (Ray 1968; UNEP 1989). First attempts to manage the marine and coastal environment through protected areas in Tanzania commenced in 1975 through regulations under the *Fisheries Act 1970*. Seven small areas of reef were declared Marine Reserves for total protection (Figure 3). These included two areas around Mafia Island—Chole Bay and Tutia Reef. Lack of capacity led to these reserves being 'paper' reserves with no active management being established. Pressure from various groups urged the creation of larger, multiple-use areas combining conservation and the concept of sustainable use and development.

Studies initiated in 1988 by the University of Dar es Salaam (Institute of Marine Science: IMS), with financial support from Shell Petroleum Development Tanzania Limited, and in collaboration with other agencies (Frontier—Tanzania), sought to provide baseline information on which to develop a proposal for Tanzania's first Marine Park. Biophysical and socioeconomic data was collected. An area of southern Mafia incorporating ten village communities was proposed for the MIMP. It was acknowledged that the communities are highly dependent on the natural resources of the area for food, shelter and income. In addition, several commercial concerns whose businesses also directly depend on the natural resources were identified. The local marine resource uses of the area include: finfish fishing, octopus fishing, coral collection, shell collection, sea cucumber, mangrove crab and lobster collection.

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In February 1991, a meeting was held in Dar es Salaam to discuss the concept of a marine park on Mafia Island. This resulted in the formation of a Steering Committee appointed by the Principal Secretary of the Ministry of Tourism, Natural Resources and Environment¹. This committee was to develop and propose the mechanism for creating and managing a marine park centred on Mafia Island. The Steering Committee collated existing information including the information presented by the IMS and the Frontier–Tanzania project (Horrill & Ngoile 1991). Frontier–Tanzania, with local counterparts and the Steering Committee, discussed the idea of a multiple-use marine park with the community.



Figure 1: Location of Mafia Island

In developing proposals for a protected area, the Steering Committee identified the need for the following two activities:

1. an assessment of the existing legislative base for such a protected area and the generation of recommendations and draft documents for any new legal statutes required; and
2. a forum at which the Mafia community and other stakeholders could air their views.

Responsibility for marine parks was delegated to the Division of Fisheries (DoF). Following a request from the DoF, the Food and Agricultural Organisation (FAO) agreed to sponsor the first of the Steering Committee's activities, a consultant, in collaboration with a representative of the Attorney General's Chambers, began work in September 1991 to review the legislative base and propose recommendations. The legal team concluded that there were various problems with the existing legal base. While formulating a specific legal structure for a park around Mafia Island, the team regarded the Mafia plans as part of a longer-term program of developing a network of marine parks and reserves. The result was the drafting of a Marine Parks and Reserves Act and Regulations.

1. Environment was separated from the Ministry of Tourism, Natural Resources and Environment and placed under the Vice-President after the elections of October 1995.

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Figure 2: Mafia Island Marine Park

The second activity was addressed by a workshop, funded by the World Wide Fund for Nature (WWF), which was held on Mafia from 20 to 25 October 1991. As a result of the workshop a proposal for the development of the MIMP was recommended. This provided a basis for the preparation of a General Management Plan (GMP). This workshop is often considered the centrepiece of community participation. The draft General Management Plan developed post-workshop (completed 1993) includes development proposals, zoning plans and administrative arrangements. The GMP was prescriptive and ambitious and despite claims about community participation, has never been circulated to stakeholders.

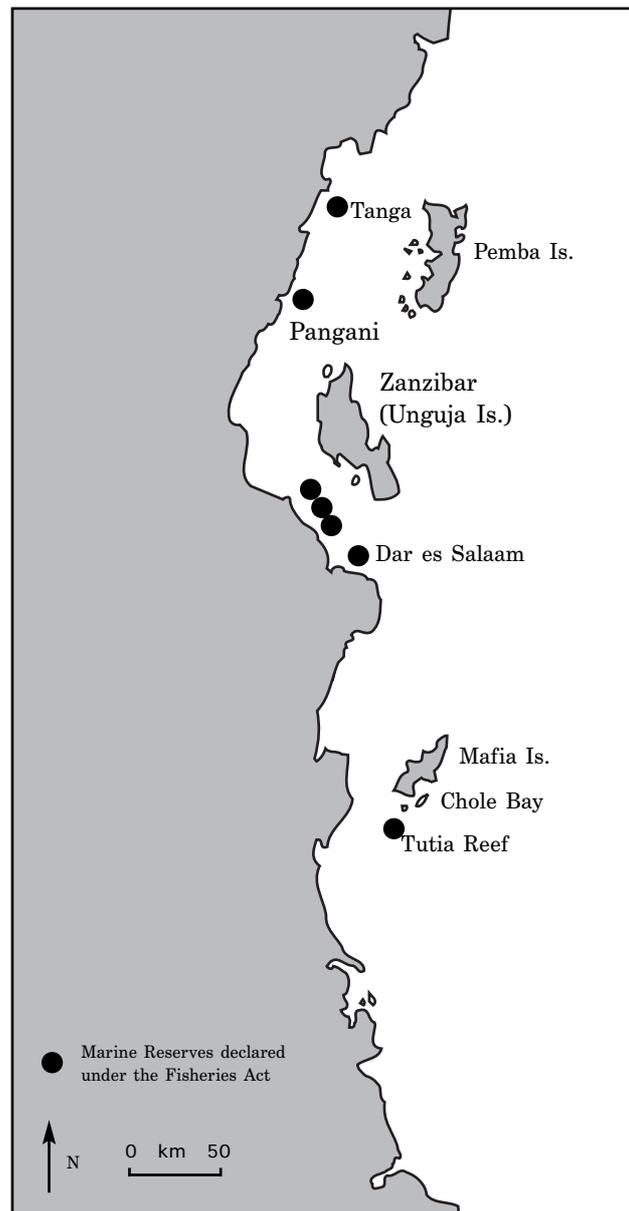


Figure 3. Location of Marine Reserves established in 1975

The *Marine Parks and Reserves Act* was passed in November 1994 and the Park was gazetted in April 1995. The lack of active management since conception and gazettal is the result of the time it has taken to appoint the Board of Trustees for Marine Parks (Board of Trustees, first meeting held in November 1996) and setup the other institutional structures as outlined in the Act. WWF has implemented a successful anti-dynamite program through the district authorities and has attempted to facilitate a more committed community participation and development program. The Division of Fisheries with funds from Norwegian Aid (NORAD) has undertaken some additional community projects.

Both the Ministry and donors appear committed to establishing a working Marine Park. However, the creation of new institutions and the struggle for control over the new enterprise has led to conflict between key participants. I will argue that significantly greater conservation gains could have been achieved had the initial focus been on determining key environmental threats with specific strategies to manage them, rather than on establishing a marine park *per se*.

The Process to Develop the MIMP

The above historical background briefly sketches the process in the establishment of the MIMP. Whilst almost impossible to document in detail the institutional and individual conflict that occurred over this period, it is important in so far as it is an expression of an underpinning, dynamic competition – a competition expressed at two levels, internationally and locally, each with individual motivations. Firstly, there is conflict due to international agencies jockeying for recognition as key players in the establishment of Tanzania's first marine park. Secondly, there is conflict as various local agencies and individuals compete to maximise institutional and financial benefits from the project. Amidst this torrid landscape, the development of the park occurred in an ad hoc manner with the key objective and output being to establish Tanzania's first marine park.

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The document, titled 'The development of a Marine National Park Mafia Island, Tanzania' (Ngoile 1989), sets the scene for the development of the Park. This work, undertaken by the Institute of Marine Science and funded by Shell Petroleum, is the first to look in some detail at the establishment of a marine park in Tanzania, and presents broad biophysical and institutional information. The preface reads, 'Although Tanzania is one of the world's leading country (sic) in conservation, with 12 terrestrial national parks and about one-third of its total area under some kind of protection, none of the country's marine resources are effectively protected.' It goes on to say, 'The information would subsequently be used in devising a master plan for the establishment of the marine park including the required infrastructure, legislation and the regulations pertaining to the management of the park.' This statement assumes that a marine park would be the best conservation tool to manage the marine resources of Mafia. There is little evidence that any other avenues for management were ever considered. The key assumption is that a protected area is the most effective tool in managing the issues related to Mafia Island and will deliver a conservation gain.

The degree to which key international conservation bodies continue to prescribe and market parks and natural reserves as central instruments for the conservation of biological diversity may also explain the lack of serious consideration for alternative conservation management approaches on Mafia Island. As Pimbert and Pretty (1995) write: 'Several international organisations continue to call for an expansion of the network of protected areas in the 1990s.' Indeed the IUCN Policy on Marine Protected Areas (Kelleher & Kenchington 1991) states that it is their policy 'to recommend that, as an integral component of marine conservation and management, each national government should seek cooperative action between the public and all levels of Government for development of a national system of marine protected areas.' The MIMP was borne out of this pressure to establish a network of marine protected areas rather than the immediate need for a closely regulated and managed system to 'protect' the marine resources of Mafia Island and surrounding areas. I suggest that agencies and donors need to have a 'thing' rather than a process on which to concentrate their funding and that this has led to considerable failure in the implementation of conservation programs.

Parks and protected areas have long been considered the best means to 'protect' 'fragile' and 'pristine' environments and many such areas have been selected for their aesthetic and scenic values. 'Pristine' evokes images of environments as they existed before human impact. The literature on Mafia Island is replete with such descriptors (Anderson & Ngazi 1995; Horrill, Darwall and Ngoile 1996; Mayers et al. 1992) whilst at the same time acknowledging that 'Mafia Island has been inhabited for at least 1000 years' and 'Most of these inhabitants are dependent on the marine environment as a source of food and income' (Caplin 1975, in Anderson & Ngazi 1995). Gómez-Pompa and Kaus (1992, in Pimbert & Pretty 1995) suggest the concept of an 'untouched or untamed land is mostly an urban perception the view of people who are far removed from the natural environment they depend on'. We attempt to protect this 'pristine' state rather than develop strategies that manage use. This sustains the contradiction that we are managing biophysical resources rather than managing people and their use of those resources. We develop parks rather than manage people.

A park is an object with boundaries recalling the earlier preservationist's notion of a 'thing' requiring protection. Conservation outcomes will be better served when the focus is on conservation as a dynamic process, where the community and other stakeholders 'do' rather than 'have' something. On Mafia Island the concept of a park encouraged battles over the 'thing'. These battles were fought by various players in various ways. Government officials competed over access to funding. Euro-american environmentalists competed for interests and high status positions in a cutting-edge project. Mafians outside Park boundaries expressed jealousy and contentiousness because they were not in the Park (Whalley 1997).

The degree to which international conservation agencies invested in the park for the park's sake rather than for conservation outcomes, is evidenced by the fact that the project was heralded as an innovative and model project well in advance of any conservation gains. International agencies have considerable investment in the notion of marine parks and this becomes a prescribed outcome with too little care for the individual contexts.

Concentration on the Park as the outcome also led to the failure to develop appropriate strategies to manage the change that implementation of the project caused. No strategies, for example, were developed to assist institutions to change from resource exploiters based on economic need, to resource managers based on sustainable use and conservation. Individuals and institutions were expected to change from centralised decision-making processes based on economic development and resource exploitation to decentralised facilitation for conservation and community development. This was to be achieved without strategies or direct funding. This inevitably led to the exploitation of funding and opportunities designated for Mafia Island. The controversial history of aid and assistance to poor nations like Tanzania should have alerted donor agencies to the risk that institutions and bureaucrats would attempt to monopolise the institutional and financial benefits that such a project carried. On Mafia Island it was obvious at the community level that there was concern over particular individuals and institutions accruing the majority of benefits from aid programs. There was on Mafia Island a belief amongst the community that international funds supported unpopular institutions. This becomes particularly alienating when programs are pushing the virtues of community participation and decision-making.

In many respects Mafia Island was the last place in Tanzania that required the sort of high-level management a marine park can afford. As early as 1968, Ray (1968) attempted to prioritise areas for the development of marine parks in Tanzania. Twenty years later the United Nations Environment Programme (UNEP 1989) again identified areas for the development of marine parks in Tanzania. The UNEP paper states (UNEP 1989:21) 'The selection of these areas have been based on the uniqueness of the habitats, biological importance, commercial fisheries importance and recreational/tourism potential.' The selection of areas, however, included little critical analysis of impacts or threats. In fact, as recently as November 1998, the latest funding proposal for the MIMP states, 'the real level of threats to the marine park are relatively unknown' (WWF 1998). Additionally, no alternative management approaches were considered.

From the outset, the establishment of the MIMP was the primary objective. The conservation issues, institutional arrangements and community development processes were then required to fit this paradigm. Environmental issues became subordinate to the Park. Key activities were dominated by political manoeuvres to control the new arrangements. Despite the problems, the international commitment to the Park was based on the continuing assumption that if the institutional framework and Park were established, then conservation gains would be forthcoming.

The Advantages and Disadvantages of the Marine Park Paradigm in Tanzania

The marine park paradigm presented by the international community can be a useful tool for the management of marine resources in particular cases. This paradigm evolved significantly from the development of the Great Barrier Reef Marine Park in Australia. Mafia Island presents a very different scenario. In Africa, the community view of a park is one of total exclusion and protection. To change this perception to the multiple-use approach of marine parks is in itself difficult, and the cause for much concern within communities. However, the debate over terminology is not the key issue here. The term 'park' evokes the sense of a definable 'thing' with established status, and as such helps to orient the community to a common concrete goal. The international community has much invested in the notion of protected areas and indeed they provide a definable entity around which to orient donor funding. For Mafia Island, this is one of the few advantages of the marine park paradigm. There were few problems raising large amounts of donor funds for the MIMP. The availability of funding becomes a key attraction for countries like Tanzania.

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The conservation issues of concern to the Mafia Island community, the managers and scientists, could have been adequately addressed within existing institutions and frameworks. Despite the fact that the Park continues to be developed, conservation issues remain basically unaddressed. I will use the examples of dynamite fishing and coral mining, to briefly illustrate how conservation threats became subordinate to the establishment of the MIMP. In addition I will describe how dynamite fishing was eventually dealt with outside the Park framework. The two issues present very clear arguments for alternative approaches and clearly illustrate why the focus on Mafia Island as a marine park has, to date, produced minimal management successes and much discord amongst the key players.

Dynamite Fishing and Coral Mining

Dynamite fishing and coral mining are two of the key environmental threats to the marine environment around Mafia Island. They were arguably the catalyst for the development of the MIMP in that they represented a threat to the 'pristine' state and fisheries. The idea of a marine park was already firmly entrenched however, and these issues had to be dealt with within the proposed framework for the Park. This meant that rather than dealing directly with the issues by developing the best available management strategies, the management of these issues had to fit into new legislation and new institutional arrangements resulting from the establishment of the Park. This is despite the fact that both dynamite fishing and coral mining were regulated under existing legislation (Fisheries Act and by-laws under the Local Government Act) and further legislation to facilitate action was not necessarily required.

An alternative approach could have been to build capacity in existing institutions in collaboration with the community. The process of establishing a new institution with new legislation effected little change. Indeed the controlling interests of the new institution are the same interests, for various reasons, that failed to deal with these issues in the first place. Any deficit in mechanisms could have been adequately dealt with by amending local by-laws under the Local Government Act or simple policy statements at a higher government level. As it stands today the *Marine Parks and Reserves Act 1994* has not established regulations and does not add any additional mechanisms for control of these issues. In any case it would be the same judiciary that would prosecute offenders under new regulations that has substantially failed to apply penalties under the existing regulations.

A successful anti-dynamite program was being carried out by WWF and the local community under an agreement with the District Authorities using the existing Fisheries regulations. Agreements and close working arrangements were quickly reached, in writing, with senior Police, the District Commissioner (the direct representative of the President), the Principal Secretary of the Ministry of Natural Resources and Tourism, and village representatives. This agreement came about because of continued community pressure to deal with this issue and the failure of the new and old institutions responsible to do so. Administrative arrangements with three institutions to undertake patrols with the new boat supplied by WWF were in place in about two months. The best efforts to resolve this issue within the new framework of the MIMP over the six years since the MIMP was conceived had failed. A previously (1994) 'quick fix' anti-dynamite program, funded by WWF (Operation Dynamite), also failed to produce any results, as there was no community involvement and no accountability.

The recent control of dynamite fishing outside the MIMP structure was successful due to the in situ nature of the approach that was developed to manage the situation. This plan utilised close working relationships with key players and the community and utilised existing decision-making structures. Close cooperation was achieved in a cost-effective manner to the mutual benefit of all the key stakeholders. Involvement of the community extended to all levels and included a formal process for the villagers to select a name for the new patrol boat (Ukombozi). The establishment of a network of solar powered VHF (Very High Frequency) radio systems, controlled and managed by the villagers, provided an efficient surveillance system that created clear links with the community and had substantial additional benefits for the community (Figure 2). Fisheries officers previously denigrated by the community gained respect and pride by being a part of a successful program.

Coral mining, like dynamite fishing, had various legislative (national and local) and institutional management arrangements before the instigation of the MIMP. However, coral mining on Mafia Island had a very different set of cultural norms. Whilst dynamite fishing was seen by the local community as abhorrent and a threat to their culture and livelihood, coral mining was not. Dynamite fishing was perceived by the local communities to be undertaken by 'outsiders' (i.e. non-Mafian), whilst coral mining was undertaken by the local community for building material and as a source of income. In fact it was the pressure from the community that prompted WWF to undertake anti-dynamiting activities outside the MIMP structure. Stopping dynamite fishing thus became purely an issue for enforcement with almost unanimous local support, whilst coral mining required a whole new set of approaches.

With coral mining the MIMP approach was simply to attempt to ban it and enforce the ban. However, to remove such an important and traditional source of material from the community would have put the MIMP in conflict with the very communities it was relying on for support. In addition, while the MIMP was pushing the 'no use' approach, various construction activities funded by other agencies and supervised by the MIMP were using live coral as their building material.

WWF had commissioned a report (Norton 1995) to look at alternative building techniques. Other agencies had funded trials of limekilns to improve the efficiency of lime production and the use of mud bricks as alternatives. A consultative and steady approach providing alternatives was winning the support of the community. The community appreciated the damage that removing coral can cause. They refer to coral as 'nyumba ya samaki' which literally means 'home of the fish', and were open to change as long as they had alternative options. The steady approach through community development and providing alternatives was producing results. However, in the middle of 1997 the Mafia Island airport was to be improved. Officers from other government ministries purchased 200 tonnes of locally produced lime to cover the runway. This lime was produced from coral accessed within the Park with the tacit approval of the MIMP administrators.

While much good work was being undertaken by various agencies outside the MIMP structure, the local community received mixed messages about coral mining from the MIMP decision-makers. The final insult came when, after the purchase of lime for the local airport a complete ban on local use was attempted. The community, all too familiar with this type of hypocrisy and inconsistency, generally continues current practices and awaits a consistent policy, one with which the community can coexist. Despite this, community support for the MIMP remains high, as it is generally perceived that the removal of dynamite fishing from the area was a direct result of their support for the MIMP. Mafia Island is an isolated district with little or no development activities other than the Park. Support will remain high with high expectations from the community. However, this support has been exploited and manipulated for political advantage by nearly all that have had come into contact with the project.

Lessons Learned

The Park, as a predetermined and prescribed outcome, significantly limited the effective achievement of actual conservation gains. I would argue that the project went far down the path to a marine park without objective evaluation of performance, because of the way the project was structured. Key individuals and agencies most likely to gain kudos and institutional and financial gain were those making the decisions about the direction of the MIMP. There was no power or decision-making delegated to the community or independent entities. In addition, there were no mechanisms within the project to ensure accountability or effective conflict resolution. The project failed to instigate the ICZM philosophy of integration at the most basic level. There were no mechanisms for the individual donors to communicate or make funding decisions as a coordinated body. Funding arrangements were independent of each other. This situation was ruthlessly exploited with many elements of the project receiving dual funding with conflicting objectives.

Where community conservation is the key objective, and to increase the success of effectively reducing threats to tropical marine ecosystems, conservation agencies need to reconsider intervention strategies and move away from a top-down approach. Threats require evaluation in situ and to be put into the context of the cultural, political, economic and biophysical environment. A process that calls for evaluating the situation and applying appropriate existing paradigms or developing individual approaches to suit the particular circumstances is relevant. While developed countries have the time and resources to commit to various ideals of conservation within a global context, the fisher, coral miner and family providers on Mafia Island have a very different perspective. The global approach to the management of tropical marine ecosystems and the international push for a representative system of Marine Protected Areas has no relevance to the Mafians. They are however, very interested in maintaining their immediate ecosystems. Mafia Island communities have a lot more to lose from environmental degradation than do a multitude of individuals and agencies making decisions on their behalf ex situ. Importantly both groups of participants have fundamentally the same objective. Establishing common ground and having a common vision needs to be the first step in any project. In the case of Mafia Island it became a matter of selling the product, 'marine park', as opposed to developing a common purpose.

The *Marine Parks and Reserve Act 1994*, was modelled on the international paradigm of ICZM, of which marine parks are considered a key tool. The Act does little to integrate decision-making. If anything, it adds additional layers of administration. The Act requires the formation of a Board of Trustees, a Marine Parks and Reserves Unit within the DoF, and a MIMP Advisory Committee – this at a time when the Tanzanian Government was desperately trying to downsize its public service to meet International Monetary Fund (IMF) arrangements. Additionally, it immediately followed a major review of the wildlife sector (Planning And Wildlife Management PAWM/USAID 1995) which recommended a rationalisation and consolidation of the environmental management sector.

The marine park concept is tightly interwoven with the philosophy of ICZM, and international agencies pursue intervention at the highest level of government. In countries with limited infrastructure, integrated decision-making at any level is difficult. This is particularly acute in very poor countries where departments are fiercely territorial due to the limited resources for which they are competing. Given this competition and the downsizing of the public sector in Tanzania, intervention at the highest level of government was always going to prove difficult. International conservation agencies establishing a new enterprise with high levels of funding in this context should have been alerted to the obvious reality that conflict and competition would ensue. No attempts were made to develop strategies to assist change or to resolve conflict between groups. Critical assumptions about institutional capacity to undertake their new role were made.

Future projects need to explore less formal mechanisms for management rather than simply creating new legislation. Government policy statements can address issues of overlapping or conflicting jurisdiction. Informal arrangements can be more cost-effective, more enduring, more flexible and less threatening. Given a process with real participation and consultation, participants are more likely to own the outcomes. This ensures less need for legislating and enforcing change or creating new institutions. In many respects the MIMP had fundamental growing pains due to the overly ambitious nature of the project. The need to be all things to all people is a major constraint to success. An approach that incorporates shared power and real participation as well as strategies to change various inappropriate institutional and bureaucratic cultures is warranted. This requires a long-term view and entails initially addressing the actual environmental threats, whilst patiently nurturing the evolution and development of appropriate community processes. At some point, this may finally translate to the development of a marine park. Only at this point could it be truly labelled 'a people's park' and represent a model of community conservation.

If the objective is to introduce a new paradigm, then understanding the culture of various agencies and institutions is crucial. Organisations are made up of people in various relationship configurations of which interdependence is a significant feature. Ultimately the response to change is expressed in the experience of individuals and the management of change is extensively the management of people. No strategies were developed to promote the organisational change required to support the new concepts of conservation and community participation. Promising to deliver changes around increased participation, without having the organisational support to do so, is bound to leave individuals feeling betrayed, undervalued and ultimately resistive.

The pragmatic view would have been to expect conflict between various key players and individuals, as a perfectly predictable outcome of organisational change. This view recognises organisations as highly political systems in which individuals and departments compete for scarce resources (Bolman & Deal 1991). There is resistance to change as individuals manoeuvre to protect interests and territory. Those in power were no better off under a system that concentrated resources and benefits on Mafia Island. In particular, those with the key responsibilities for establishing the new institutional framework for the MIMP were those who had the most to lose from this new arrangement. This was obvious, and strategies to compensate for this should have been developed if building capacity within institutions to sustain this new enterprise was a goal.

A clear example of organisational resistance can be seen in the community development projects undertaken within the MIMP with funds directed through the Government. Two years after the Norton (Norton 1995) consultancy, which looked at alternatives to using mined coral (principally *Porites spp.*), the MIMP funded building projects on Jibondo Island using coral mined from the Park. Conservation or community development was certainly not the driving force behind these activities. They were decisions to win over various groups on Mafia Island for power and territorial claims. These types of actions should have been predictable, yet no strategies for accountability or processes for decision-making were implemented by any of the key players to avoid this.

The concept of the MIMP as a true community-based project is highly commendable. The fact that the new Act does not reflect this concept is partially due to the fact that little thought was given to the meaning of 'participation' and 'community'. Nowhere in the literature relevant to the MIMP are these concepts actually defined or seriously discussed. The failure to define 'participation' and 'community' early on in the project led to the failure to implement strategies to ensure actual participation. When we have a clearer focus on what participation and communities are, we will give greater consideration to the intervention points of projects. Central government bodies may not be the most appropriate level for true community-based work. A World Conservation Union (IUCN) project in Tanga is generally perceived to be a successful example of ICZM at the community level. There are probably many good reasons for this, however, prime consideration has to be that the IUCN project injected its activities directly at the regional and district level and was not constrained by the need to set up a marine park. Mafia Island would have been ideal for intervention at the district level as it encompassed only one district. Immediate benefits at the community level and fewer layers of bureaucracy would have been the advantage of intervention directly at the village and district level on Mafia Island.

Community participation and decision-making remains rhetoric without mechanisms to achieve this. Concepts and processes for community participation and decision-making must be discussed, developed and articulated for the particular context early in project development. Communities should be given some role in determining how participation and decision-making are initiated. There is much fear embodied in these concepts – the fear of losing power by those that have it and the fear of using power to those promised it. Those giving it up must be taught how to share it and those taking it up must be taught how to use it. The arrogant perception that communities lack the education and technical understanding to fully participate must be redressed. Mafia Island already had extensive or existing community-based decision-making processes. Tapping into these existing structures in many cases is much more appropriate and cost-effective than developing new ones. Believing agencies and individuals when they use the rhetoric of empowerment and participation without accountability is misguided.

It is extremely important early in projects such as Mafia Island to establish effective operational links between the key stakeholders and players. This was never achieved on Mafia Island. The formation of various committees and advisory groups was used to exclude various factions and stakeholders in the decision-making process. While some would argue that the members of these committees represented key groups, in reality this was not the case. The committees were heavily laden with bureaucrats and technocrats. Everyone on the Board of Trustees and Advisory Committee was appointed at the national level (even the local representatives are appointed). Meetings were mostly held on the mainland and attendance was by invitation only. Access to decision-making bodies during the development of the MIMP was highly limited.

In relation to the MIMP, power was highly centralised. In many respects the new Act removed participation from the local community as many of the issues now under the Act had been previously dealt with through the District Council under the Local Government Act. This new arrangement usurped that authority, added another layer of bureaucracy and failed to integrate the various interests. It is important in the early stages of any project to ensure there are checks and balances with regards to the process, and that genuine linkages with other stakeholders are developed. Mechanisms for information flow and feedback to the stakeholders are also essential.

For the MIMP to have community support it was important that they were convinced about tangible economic and social benefits accruing from the project. These economic and social benefits were easily promised to encourage support for the project, but to deliver these in a sustainable manner was extremely ambitious and in many respects dishonest. The development of the MIMP and the provision of social and economic benefits to the community were in the long term to be funded from tourism. Considering the cost of the development of the MIMP and its various organs this was never going to be achievable. Tourist projection figures were highly exaggerated. When it was clear that tourism was never going to be in a position to fund the park in a sustainable manner, no redress was made. This put enormous pressure on the fledgling and struggling tourist operators on Mafia Island who were major stakeholders but again, were rarely consulted.

It was unrealistic to assume one marine park could fund the Board of Trustees, the Marine Parks and Reserves Unit and the Mafia Island Advisory Committee as well as MIMP staff, operational expenses and put money back into the community and have some left over to develop new marine parks. Indeed, Tanzania's terrestrial parks, with their World Heritage listings and huge tourist appeal, fail to do this and require substantial donor and government support. Thus the issue of sustainability for protected areas in undeveloped countries needs to be viewed from a different perspective, and actual environmental and social gains need to be factored into the financial sustainability equation.

Much can be learnt from the establishment of the MIMP. The difficulty is to get those in positions of power to take on these lessons and actively pursue change that will lead to greater success – a success measured in terms of environmental, not political outcomes. The biggest obstacle to dealing with many of the fundamental problems of the MIMP is the level of investment that various individuals and agencies have in marine parks, and specifically the MIMP, as an outcome.

Conclusions

The people within the MIMP still believe that they will have a controlling interest in determining the park management and will gain monetary benefits in the form of tourist charges. This promise of money remains central to their support for the Park. Unless a more well-considered process is undertaken, with the community as a dominant and driving force, the MIMP faces the same fate as previous attempts at Marine Reserves in Chole Bay and Tutia Reef (Figure 3). Large amounts of donor money may give the impression that something is being achieved, however the days where the success or failure of protected areas is measured by the amount of infrastructure achieved, should pass into history. Mafia Island Marine Park needs commitment and accountability, not rhetoric and overcapitalisation.

While I have argued that the issues of dynamite fishing and coral mining could have been resolved more cost effectively and in less time without the umbrella of the MIMP, I am not suggesting that, given the opportunity and some fundamental changes, this Park would not produce results. Indeed it fulfils many good criteria for a marine protected area.

- It is of a manageable size.
- It has community support.
- The community has existing well-organised, decision-making structures, easily able to be harnessed towards real project participation.
- The boundaries incorporate the coastal zone.
- The MIMP is an easy focal point for international agencies to fund.

My argument is that key environmental issues for Mafia Island could have been dealt with in less time with less money and with much less angst. This could have been achieved by commencing at the community level and would have in time attracted genuine multi-sectoral support as benefits flowed across the board. The project highlighted many issues that are common across the developing world and require a more enlightened approach. Hopefully the experiences on Mafia Island will encourage institutions and agencies to closely evaluate the advantages and disadvantages of applying sophisticated, developed-world paradigms in developing countries.

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